REMARKS

This Amendment is being filed in response to the Final Office Action mailed on October 27, 2010, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-6 are pending in the application. Claim 1 is an independent claim.

In the Final Office Action, claims 1-6 are rejected under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2005/0120902 to Adams ("Adams") in view of Cherniavskaya (Langmuir 2002, 18, 7029-7034, provided as NPL by Applicant, "Cherniavskaya") and U.S. Patent Publication No. 2003/0047535 to Schueller ("Schueller"). It is respectfully submitted that claims 1-6 are patentable over Adams in view of Cherniavskaya and Schueller for at least the following reasons.

Claim 1 is amended to further illuminate that the claims set out a "method for ensuring absence of ink on a contact surface of an elastomeric stamp before transferring an ink pattern to a surface of a substrate." The applicants have argued this point in responses to previous Office Actions with reference to the first contacting act, "resulting in a transfer of all of the ink from the contact surface of the protruding feature to the surface of the first substrate such that none of the ink remains on the contact surface of the protruding feature", as recited in claim 1. It seems to the Applicants that the above quoted recitations sufficiently describe that all of the ink is transferred from the contact surface due to the

contacting act and accordingly are NOT due to dewetting as in the provided prior art.

With regard to the references, it is undisputed that Adams does not teach "a barrier layer covering the contact surface and the edge on the protruding feature and the bulk surface" (see, Final Office Action, page 5). However, even after admitting the above, the Examiner states the following:

> Adams et al. does teach that the material of the stamp surface and the choice of solvent and molecular ink act in such a way as to prevent the majority of the solvent from entering the stamp and in this way functions similarly to a barrier layer (see paragraph 8, and paragraph 25, the preference to ethanol solvent with a PDMS stamp).

It is respectfully submitted that the position of the Final Office Action is anachronistic and misses the point. Further, it is respectfully submitted that Final Office Action of Adams is correct, in that Adams must carefully choose its solvent and molecular ink as well as the material of the stamp. Schueller has the same problem. In Schueller "[a]fter the ink has been applied to the stamp surface, the stamp surface is then dried if required for the particular ink", (see, Schueller, paragraph [0051]). Contrarily, claim 1 provides a way so that choices regarding the inks and stamp material do not have to be made, and drying of the stamp becomes unnecessary.

As noted above, claim 1 recites removing all of the ink from the contact surface by "contacting the contact surface of the protruding feature with a surface of a first substrate". This is missing from Adams. Instead in paragraph 8, Adams states the following:

> The solution and the material of the surface of the stamp structure are such that the solution dewets from the surface of the stamp structure,

including each stamp surface, so as to accumulate in each recess.

Such solvents and stamp materials that allow dewetting of stamp surfaces are expensive. Further, as pointed out in the present application, dewetting such as taught by Adams leave traces of the ink on the contact surfaces of the protruding features of the stamp, causing blurring of the features printed on the substrate (e.g., see, present application, page 2, lines 3-8). Further, ink solutions exhibiting dewetting behavior are limited. The above quoted contacting act of claim 1 is directed to solve the problem in the prior art, such as Adams precisely because dewetting ink solutions and stamp materials have problems addressed by the present claim recitation.

Further, the Examiner elected to combine Adams and Cherniavskaya, proposing to add pads of Cherniavskaya to the stamp surfaces of Adams. This is contrary to the purpose of Adams as its stamp material is specifically selected to provide dewetting. Paragraph 8 of Adams continues with the following:

> The surface of the stamp structure, including each stamp surface, is then dried to evaporate the solvent and leave the molecular ink in each recess with substantially no molecular ink being left on each stamp surface.

Here, Adams teaches drying of the whole surface of the stamp. This again teaches away from claim 1, in which only the contacting surface is contacted with the first substrate and "the contacting resulting in a transfer of all of the ink from the contact surface of the protruding feature to the surface of the first substrate such that none of the ink remains on the contact surface."

Returning now to Cherniavskaya, the Examiner admits that the so called "barrier layer" of Cherniavskaya does not cover the edge, and then makes a leap to concluding that "[b]y covering the contact surface, the protruding feature and the bulk surface are also covered." It is respectfully submitted that Cherniavskaya simply does not provide sufficient detail for jumping to this conclusion. Finally, the Examiner concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to enhance the hydrophobic nature of the PDMS surface for the purpose of improving dewetting and preventing swelling of the PDMS stamp". It is respectfully submitted that this conclusion flies in the face of everything described in the specification, set out in the claims, and which has been argued by the Applicants throughout this prosecution.

As previously argued, the specification explains that "[t]he dewetting step can leave traces of the ink on the contact surfaces of the protruding features of the stamp, which can cause blurring of the features printed on the substrate." See, present application, page 2, lines 3-9 discussed above. Accordingly, instead of using dewetting materials and solvent as taught by the prior art, claim 1 recites "contacting the contact surface of the protruding feature with a surface of a first substrate ... the contacting resulting in a transfer of all of the ink from the contact surface of the protruding feature to the surface of the first substrate such that none of the ink remains on the contact surface of the protruding feature". In other words the ink is removed from the contact surface not by dewetting as taught by Adams or as reasonably provided by Adams combination with Cherniavskaya and Schueller. In

contrast, in the present system, an act of contacting the contact surface of the stamp with a surface of "the first substrate having the higher second affinity for the ink than the first affinity of the barrier layer", as recited in claim 1.

Thus, it is respectfully submitted that the method of claim 1 is not anticipated or made obvious by the teachings of Adams, Cherniavskaya and Schueller. For example, Adams in view of Cherniavskaya and Schueller do not teach, disclose or suggest, amongst other patentable elements, (illustrative emphasis added) "contacting the contact surface of the protruding feature with a surface of a first substrate, the surface of the first substrate having a second affinity for the ink higher than the first affinity of the barrier layer, the contacting resulting in a transfer of all of the ink from the contact surface of the protruding feature to the surface of the first substrate such that none of the ink remains on the contact surface of the protruding feature due to the surface of the first substrate having the higher second affinity for the ink than the first affinity of the barrier layer", as recited in claim 1.

Based on the foregoing, the Applicants respectfully submit that independent claim 1 is patentable over Adams in view of Cherniavskaya and Schueller and notice to this effect is earnestly solicited. Claims 2-6 respectively depend from independent claim 1 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position or averment of the Examiner

that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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